

In re Application of:
Randall Ho et al.
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Claim Listing:

Claims 1-3 (canceled)

Claim 4. (currently amended) A method for generating a three-dimensional animated video head, comprising steps for :

capturing a sequence of two-dimensional video image frames of the face of an actor;

for each two-dimensional video image frame:

sensing the locations of the actor's facial features at predetermined node locations in the two-dimensional video image frame, wherein each node location is associated with a particular facial feature;

driving control points on a three-dimensional head mesh based on the sensed node locations in the two-dimensional video image frame to generate a shaped three-dimensional head mesh;

warping the two-dimensional video image frame used to generate the sensed node locations for projection onto the shaped head mesh; and

texture mapping the warped two-dimensional video image frame onto the shaped head mesh to generate a three-dimensional frame head associated with the respective two-dimensional video image frame; and

animating the three-dimensional video head by displaying a sequence of the three-dimensional frame heads associated with the sequence of two-dimensional video image frames.

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Claim 5. (currently amended) Method for generating a three-dimensional animated video head as defined in claim 4, wherein the step of sensing the locations of the actor's facial features at predetermined node locations in the sequence of two-dimensional video image frame frames is performed using a transformed facial image frame frames generated based on wavelet transformations.

Claim 6. (currently amended) Method for generating a three-dimensional animated video head as defined in claim 4, wherein the step of sensing the locations of the actor's facial features at predetermined node locations in the sequence of two-dimensional video image frame frames is performed using a transformed facial image frame frames generated based on Gabor wavelet transformations.

Claim 7. (new) Method for generating a three-dimensional animated video head as defined in claim 4, wherein each two-dimensional image frame, in the sequence of two-dimensional video image frames, has only one view of the actor's face.